E&MJ METAL AND MINERAL MARKETS

WEEKLY MARKET INFORMATION ISSUED BY THE PUBLISHERS OF ENGINEERING AND MINING JOURNAL

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THIS WEEK IN THE MARKETS . . .

- **U. S. copper fabricator data poor – shipments, sales, orders drop, stocks rise.**
- **Canadian Governments subsidize workers hurt by copper drop. Cadmium price down.**
- **Lead and zinc sales better, but still low. GSA takes same amount as last month.**

COPPER – domestic average 26.550c per lb f.o.b. ref'y

Pricings of copper in the U. S. dropped sharply this week, partly reflecting a normal fall-off owing to the holidays. The weighted average price rose owing to the scarcity of sales at less than the 26.6c f.o.b. price. Foreign sales were also down considerably. The average price was little different from last week. London prompt bid was about 22½c Tuesday – it had changed little during the week. The AS&R custom smelter weighted average price rose this week owing to the higher proportion of the total sold on the *E&MJ* average.

It is still uncertain at what price White Pine copper is being sold to the Government. Probably it is about 28½c but there is some uncertainty about whether the price is f.o.b. or delivered. This should be settled soon. Since White Pine is far from usual delivery points, it could make a great difference.

The Canadian government will contribute $16,000 per month and the British Columbia government $4,000 to upkeep of workers' houses in the Howe Sound company town. This will permit the company to remain in operation during the winter, though on a reduced scale.

U. S. fabricator data for November 1956, and September, October and November 1957 follow:

	1956	1957		
	Nov.	Sept.	Oct.	Nov.
	Fabricator Activity			
Shipments	119.441	106.927	119.161	98.725
Sales	99.738	107.090	113.043	89.024
Unfilled orders	128.719	144.538	138.420	128.719
	Fabricators' Copper			
Stocks	435.216	425.168	420.130	428.520
On order	110.792	80.436	80.774	68.249
Receipts	114.524	102.925	114.203	106.815

The data were very disappointing. The low shipments and sales and the further drop in unfilled orders indicated an upsurge was farther away than many had been predicting. The drop in the amount of copper on order did not suggest heavy sales of refined copper in the immediate future.

CADMIUM – $1.55 per lb to consumers

A major distributor dropped cadmium from $1.70 per lb to $1.55, effective Dec. 21; others followed. So far the producer price charged the distributor has not changed. There had been considerable price cutting.

LEAD – 13c New York

Lead sales this week were 5,432 short tons; this is the best since the last week of November. Sales so far this month have been about half of "normal." They are well down from last month which was exceptionally low. GSA acceptances of lead offers were probably about the same this month as last.

London lead prices were fairly stable this week; prompt bid reached about 9¼c Friday and on Tuesday it was down from this by less than ⅛c. It is about ½c above the low reached Dec. 12. Assuming the proposed tariff increase to 2.55c goes into effect, this price and the N. Y. price of 13c provide a differential that will permit lead to continue to enter the U. S. Some factors suggest it would mean about the same amounts as in the past year but others feel some output reductions abroad would mean reduced imports even though the differential is large.

November replacement battery shipments reported by Dun & Bradstreet were 2,357,400, down about 10% from November 1956 and about 25% from last month.

ZINC – 10c East St. Louis

Zinc sales this week were the highest since the last week of November. Sales so far this month are fewer than for the comparable period of November.

London zinc prices Tuesday were about ⅛c less than at the beginning of the *M&MM* week. They are about £1 above the low reached December 10 and 12. London bid prompt is about 2¼c under the East St. Louis price. If this differential were maintained and the duty were raised to the maximum permitted, 2.1c, some sources of imports would be cut off. Only places from which shipment costs are low relative to shipment costs to other markets would be likely to export zinc to the U. S. But most factors expect the differential to increase though some point out that production outside the U. S. has been reduced and therefore they believe less will be offered in the U. S.

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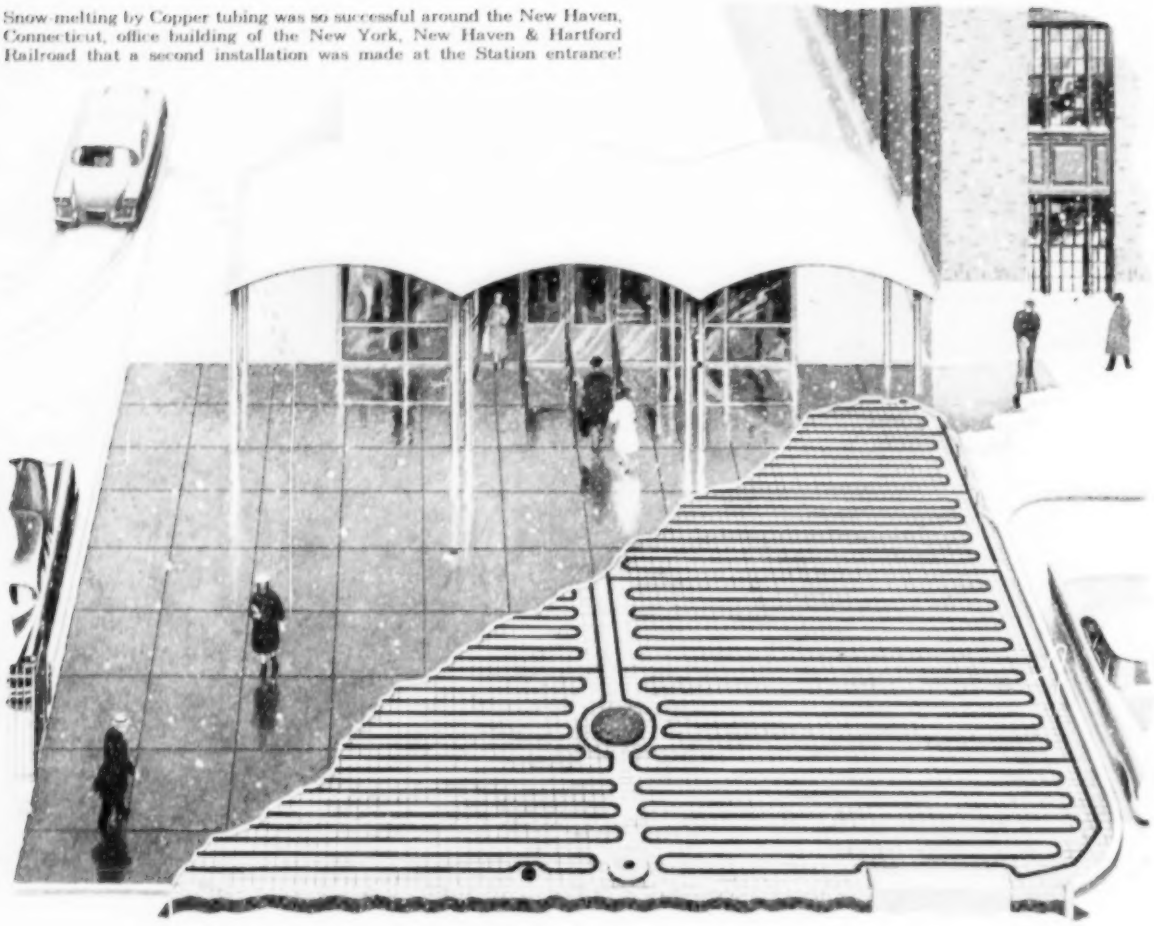
Snow-melting by Copper tubing was so successful around the New Haven, Connecticut, office building of the New York, New Haven & Hartford Railroad that a second installation was made at the Station entrance!



Add COPPER
...and stop shoveling snow!

In New Haven at the railroad station, snow is removed by melting. Hot water, circulating through Copper tubes embedded in the pedestrian pavement, keeps the whole area clear!

Installing a snow-melting system . . . in front of a store or bank or office building or along residential sidewalks and driveways . . . *is easiest with Copper.* For Copper tube comes in 60 and 100 foot lengths, minimizing the number of joints needed. These joints are quickly made too . . . by soldering or brazing. Also, the flexibility of Copper tube makes most of the bending something a mechanic can do with his two hands and a knee!

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For other examples of Copper tube's lower cost of installation write the Copper & Brass Research Association, 420 Lexington Avenue, New York 17, N.Y.

E&MJ METAL AND MINERAL MARKETS

WEEKLY MARKET INFORMATION ISSUED BY THE PUBLISHERS OF ENGINEERING AND MINING JOURNAL

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Inter-American Council Votes Anti-Tariff Resolution

Washington (AP): The Inter-American Economic and Social Council has approved, over U. S. objections, a resolution which "sees with alarm" the possibility of restrictions on lead and zinc imports.

The vote on the resolution—presented by the Council's Committee on Basic Products—was 15:1, with the U. S. registering the only opposing vote.

The Council is a specialized agency of the 21-nation Organization of American States (OAS). Its opinion is not binding upon the U. S., which now is considering changes in the tariff on lead and zinc.

U. S. Representative Harold M. Randall criticized the resolution as having been prepared with "excessive haste" and said it also reaches "erroneous conclusions."

He pointed out that the U. S. Tariff Commission has still to make a recommendation to President Eisenhower on lead and zinc, and that the President has yet to make a final decision.

The lengthy resolution was backed strongly by Mexico, Peru and Bolivia, three leading hemispheric producers of the two metals. They said any tariff increase would gravely affect their economies.

The resolution, in its operative portion, says the Council resolves:

"1—To state that it sees with alarm the possibility that in the United States of America there might be increased restrictions on the importation of lead and zinc, because of the serious harm that this measure would cause to the economies of the Latin American countries that traditionally produce and export these commodities;

"2—To stress that any restrictions on the trade in lead and zinc to which this resolution refers would be at variance with the spirit of cooperation proclaimed within the inter-American system."

The resolution was approved virtually as it was presented by the Basic Products Committee, and despite the criticisms levelled by Ambassador Randall.

He pointed out that the U. S. has given serious and long consideration to any new restrictions on lead and zinc, that exhaustive hearings have been held by the Tariff Commission.

The resolution, he added, nevertheless treats an increase as definite, and goes on to say that it would have a "ruinous" effect on the economies of producer nations.

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Weed Named Anaconda VP; Kennedy, Glass Retire

Herbert M. Weed has been elected vice president of Anaconda Sales Co. as of Jan. 1. He succeeds William E. Kennedy, executive vice president, who retires after 55 years' continuous service.

Also retiring at the end of the year are Clarence Glass, Sales Co. vice president, after 52 years' service; and John A. O'Brien, assistant secretary, after 54 years with the organization.

Kennedy, Glass and O'Brien also held corresponding posts with the Anaconda Export Co., another subsidiary of the Anaconda Co. Weed will become vice president of the Export Co.

Weed is a graduate of Washington and Lee University and a Navy veteran. He has served in a number of capacities since joining the organization in 1946, including the packaging department of Anaconda Copper Mining Co.; the sales department of Anaconda Wire & Cable; district manager of the Pittsburgh office of the latter company; assistant to the vice president of the Chile Exploration Co.; and assistant to the executive vice president of the Anaconda Sales Co.

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Philipp Bros. Establishes Arturo Gruenbaum Chair

Philipp Brothers Foundation has established the Arturo Gruenbaum Chair in Mining and Metallurgy at the Technion-Israel Institute of Technology, Haifa, Israel.

The $100,000 endowment has been set up as a memorial to Arturo Gruenbaum, for many years a partner of Philipp Brothers, Inc., New York City.

S. Ullman, president of Philipp Brothers, in providing $100,000 to the Israel technological university for the development of an academic program in the fields of mining and metallurgy, stressed that this was a "fitting tribute" to Mr. Gruenbaum and a "concrete step in advancing technological education in a vital part of the world."

The late Arturo Gruenbaum was born in Fulda, Germany, in 1904, and became a senior partner of Philipp Brothers, London, early in his career. He later directed the company's affairs in Bolivia for 20 years, and served as the Honorary Vice Consul of Bolivia in New York after establishing his residence in this country.

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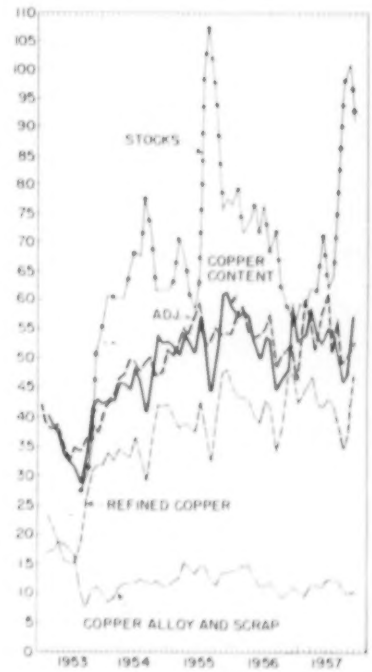
U. K. Copper Fabricating



Data in thousands of long tons from British Bureau of Non-ferrous Metal Statistics. All series except stocks refer to copper content of fabricated products. All are two months moving averages except stocks and the one marked "adj." The last is the copper content series adjusted for seasonal variation—this adjustment mainly eliminates the regular low of April, July and August, and the high in March and September through December. Data through October 1957.

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Miscellaneous Metals

Wholesale lots, (a) f.o.b. ship. pt.; (b) delivered; (c) f.o.b. N. Y.

ALUMINUM: lb (b), 30 lb ingot 99.5%, 28.1c; pig, 26c. Ingot, 99.75%, 28.6c; 99.85%, 30.1

ANTIMONY: lb, Dec. 19-25, boxed N.Y. (c), 36.590c; bulk (a), 33c; boxed (a), 33½c. Holiday Dec. 25.

BISMUTH: lb, ton lots, $2.25

CADMIUM: lb (b), Dec. 19-21, sticks $1.70; shapes, $1.70. Dec. 23-25, $1.55. Holiday Dec. 25.

CALCIUM: lb, ton lots, slabs, pieces, $2.05

CHROMIUM: lb (b), 97%, .5%C, $1.29; 9-11%C, $1.38; Elec., 99%, $1.29. Eff. 9-1-56

COBALT; lb (c), 500 lb lots, $2.00; 100 lb, $2.02; less, $2.07. Eff. 2-1-57; fines, $2.00

COLUMBIUM: lb, 99½%, dep. on lot: roundels, $55-70; electrode segments, $60-75; rough ingots, $65-80

GALLIUM: gr, 1000 gr lots, $3; less, $3.25

GERMANIUM: gr, 1000 lots, 1st red., 40c (b)-43½c(a); intrinsic, 44½c(b)-48½(a); 10,000 lots, 1st red., 38c(b)-42½c(a); intrinsic, 42½c(a)-45½c(b)

INDIUM: troy oz, 99.9%, $2.25

IRIDIUM: troy oz, $100-$110

LITHIUM: lb 98%, $11-$14

MAGNESIUM: lb (a), 10,000 lb lots, pig ingot 99.8%, 35¼c-36.65c; notched ingot, 36c-37.45c. Eff. 8-13-56

MANGANESE: lb (b), 95½%, carloads bulk, 45c; packed, 45¾c; Elec. (a), frt. allowed E. of Miss., 99.9%, 34c; ton lots, 36c. Eff. 4-1-57. Prem. for hydrogen removed, ¾c lb

MOLYBDENUM: lb (a), powder, carbon red., $3.35. Eff. 8-56

NICKEL: lb (a), duty included, 74c. Eff. 12-6-56; dealers, 70-77c; powder (b) U. S., 80-85c; sinter (a), 70¼c. Eff. 12-6-56

OSMIUM: oz, $80-100, nominal

PALLADIUM: troy oz, $21-22½

PLATINUM: troy oz, $76-80, aver., $77

QUICKSILVER: flask, N. Y. $225-30

RADIUM: mg, Ra content, $16-21½

RHODIUM: troy oz, $118-$125

RUTHENIUM: troy oz, $45-$55

SELENIUM: lb, comm. grade, $7.50; high purity, $10.50. Eff. 11-18-57

SILICON: lb (b), 97%, max. .51-.75% Fe, crushed, 23.85c; lump, 22c. Eff. 9-1-57. Hyper-pure: #1, $360; #2, $250; #3, $160; solar cell, $100. Eff. 4-1-57

SODIUM: lb, carloads, 16½c; less, 17c

TANTALUM: kilo (2.2 lb): rod, $128; sheet, $100

TELLURIUM: lb, $1.65-$1.75

THALLIUM: lb, $12.50

TITANIUM: lb (a), A-1, 99.3%, max. .3% Fe, $2.25; max. .5% Fe, $2.00. Eff. 6-3-57

TUNGSTEN: lb, 98.8%, 1000 lb lots, $3.15. Eff. 8-1-57. Hydrogen red., 99.99%, $4.10-4.20. Eff. 6-10-57

VANADIUM: lb, 90% V, 100 lb lots, $3.65

ZIRCONIUM: lb (a), sponge, powder, platelets: low hafnium, $7-14; comm. $5-10

Chromite Consumption Off 4% in September

Domestic consumption of chromite during September 1957 decreased 4% compared with August, but consumption during the first 9 months was 3% higher than during the same months of 1956. According to the U.S. Bureau of Mines.

The metallurgical industry consumed 91,121 short tons of chromite (47.1% Cr.O.) in September in the production of 35,770 tons of chromium alloys and chromium metal. The industry used an additional 1,640 tons of chromite (49.1%) in direct additions to steel. Of the total chromite used in the production of chromium alloys and metal, 73,803 tons (48%) was metallurgical grade, 14,586 tons (43.7%) chemical grade, and 2,732 tons (33.4%) was refractory grade ore.

Stocks of chromium alloys and chromium metal at producers' plants at the end of September totalled 65,466 short tons, and stocks of chromium chemicals at producers' plants totalled 12,381 tons, sodium bichromate equivalent.

Domestic production (shipments) of chromite during September totalled 13,067 short tons, natural weight. On a dry weight basis, California shipped 3,534 tons, Montana 8,198 tons, Oregon 711 tons, and Alaska 30 tons.

Statistics of chromite (chrome ores) in 1953-56 and first 9 months of 1957, in short tons:

	Production (shipments)	Imports	Consumption
1953	58,817	2,226,631	1,335,755
1954	163,365	1,471,037	913,973
1955	153,253	1,833,999	1,583,983
1956	207,662	2,175,056	1,846,600
1957:			
1st Qtr.	37,365	543,879	491,403
2nd Qtr.	42,114	591,542	463,224
July	13,107	273,132	120,467
Aug.	14,305	197,508	141,398
Sept.	13,067	134,225	136,330
Total 3rd Qtr.	40,479	604,865	398,195
Total 9 Mo.	119,958	1,740,286	1,352,822

Weakened Demand Puts Zircon in Over-Supply

Melbourne (McGraw-Hill World News): Australian production figures for zircon in 1957 are certain to disclose a record output, but the Australasian Bureau of McGraw-Hill World News understands that a revision of production targets is being discussed and may be introduced early in 1958.

Zircon output from the east coast of Australia is now running at a rate of about 90,000 tpy. A plant for the extraction of zircon is about to come into operation on the western coast of Australia (Western Titanium N.L.), but overseas demand is reported to be considerably weakening. Informed Australian sources are afraid that a position of over-supply has been achieved.

It is pointed out, however, that ruling prices are still favorable to Australian producers and the proposed cutback in production should not be of great magnitude. It is more likely to affect new producers than those with established production and markets.

Metallic Ores

Tons of 2000 lb or units of 20 lb, unless otherwise stated. Short ton unit=stu; long ton unit=ltu. (a) c.i.f. U. S. ports, (b) f.o.b. ship. pt., (c) f.o.b. mine or mill

ANTIMONY ORE: stu of Sb cont., 50-55%, $2.25-2.40; 60% $2.40-2.60; lump, 65%, $3.00-3.10

BERYLLIUM ORE: stu BeO cont., 10-12% (c), $46-48 dep. on quan.; imported ore, (a), $36-37

CHROME ORE: lt, dry basis, subject to penalties if guarantees are not met, f.o.b. cars, Atlantic ports

Rhodesian: (c)
48% Cr_2O_3, 3 to 1 ratio .....(a)$47-$49
48% Cr_2O_3, 2.8 to 1 ratio .....(a)$44-$46
48% Cr_2O_3, no ratio .....(a)$37-$39
South African (Transvaal): (c)
48% Cr_2O_3, no ratio .....$36-$37
44% Cr_2O_3, no ratio .....$26-$26.50
Turkish (basis 48% 3 to 1):
48% Cr_2O_3, 3 to 1 ratio, lump and concentrates .....(a)$55-$57
46% Cr_2O_3, 3 to 1 ratio, lump and concentrates .....(a)$52-$54
Pakistan (Baluchistan):
48% Cr_2O_3, 3 to 1 ratio .....(a)$52-$53
(a) Nominal. (b) Long term contracts.
(c) 1958 shipment.

COBALT ORE: lb Co cont., (b); Canadian Gov't buying prices, 9%, $1.30; 10%, $1.40; 11%, $1.50; 12%, $1.60. Free market, 10%, 60c; 11%, 70c; 12%, 80c

COLUMBITE ORE: lb of pentoxide, 65% Cb_2O_5, col-tant. ratio 10 to 1, $1.15-1.20; 8½ to 1, $1.00-1.05

IRON ORE: lt, lower lake ports, Lake Superior ore 1957: *Mesabi, non-bessemer*, 51½% Fe, $11.45; *Old Range, non-bessemer*, $11.70 — *Mesabi, bessemer*, 51½% Fe, $11.60; *Old Range, bessemer*, $11.85 — *Eastern ores*, cents per ltu, del. furnaces, foundry and basic, 56-62%, 17-18c — *Swedish*, 60-68% (contracts), stu 25c+dep. on grade, (a) Atlantic — *Brazilian*, gross ton 68½% Fe, (b), $14.-60, prem. for low P. Eff. 1-1 & 4-1, 1958

MANGANESE ORE: Indian, ltu Mn, 46-48% Mn, (a), export duty included, import duty extra, $1.36-$1.39, nominal. Exclusive of export duty, $1.225-$1.255. Low Fe (max. 2%), 48%, ltu, duty extra, nominal. Mn dioxide, 84% MnO_2, lt, bulk, crude, (a), $110-120. Chem. grade, st, coarse or fine, 84% MnO_2, carloads, (b) Eff. 1-1-57: paper bags, $144.50; burlap bags, $148.00; drums $152.50.

MOLYBDENUM ORE: lb cont. Mo, 90-95% MoS_2, (b) Climax, $1.18+cost containers; (b) Washington, Pa., $1.23

TITANIUM ORE: gross ton, ilmenite, 59½% TiO_2, f.o.b. cars, Atlantic ports, $26.25-30.00. Rutile, 94%, st, for del. within 12 mos. $120-125; lower for more distant delivery

TUNGSTEN ORE: stu WO_3, 65% basis: foreign ore, nearby arrival, (a), duty extra, wolfram, $12-$13; scheelite, $11-**$12 dep. on grade. Low moly scheelite** higher. U. S. scheelite, stu, (c) $19.50-$20. London, ltu WO_3, good ore, wolfram, 97s 6d bid, 102s 6d asked

VANADIUM ORE: lb V_2O_5 cont., dom., (c), 31c

ZIRCON ORE: (sand), lt, (a) Atlantic, 65% ZrO_2, $50-51, dom. 66%, st, (b) Jacksonville, $50; Starke, Fla., $55

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BRASS — Cents per lb (base prices)

	Sheet	Wire	Rods
Yellow Brass	44.02	44.56	45.96
Best quality brass ..	45.32	45.86	45.26
Red brass 80%	46.50	47.04	46.44
Red brass 85%	47.37	47.91	47.31
Com'l bronze 90% ..	48.78	49.32	48.72
Gilding metal	49.66	50.20	49.60

Eff. Nov. 4

COPPER — Per lb Sheets, over 20 in. wide, 50.13c, rolls 20 in. and under, 48.16c; Wire, bare, carload lots f.o.b. mills 32.355c, eff. Sept. 3, 1957.

LEAD SHEETS — Per lb, full rolled, 140 sq ft 18½c.

MONEL METAL — Per lb (base prices) Standard cold-rolled sheet, 97c; cold-rolled strip, 99c Rods, hot-rolled 80c.

NICKEL — Per lb (base prices) sheets, cold-rolled, $1.13; rods, hot-rolled, 94c.

NICKEL SILVER — Per lb, sheets, 10% 60.43c; 18% 66.11c; wire and rods, 10% 62.76c.

PHOSPHOR BRONZE — Per lb, sheets 5% tin, 69.07c; wire and rods, 5% 69.57c; 10% 76.18c.

ZINC — Per lb, carload lots f.o.b. mill (base price): Sheet 24c; ribbon 20½c; plates 19c.

ZINC DIE-CASTING ALLOY — Ingot per lb, carloads lots, delivered, No. 3, 14¼c; No. 5, 14¾c.

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INVISIBLE LEAD

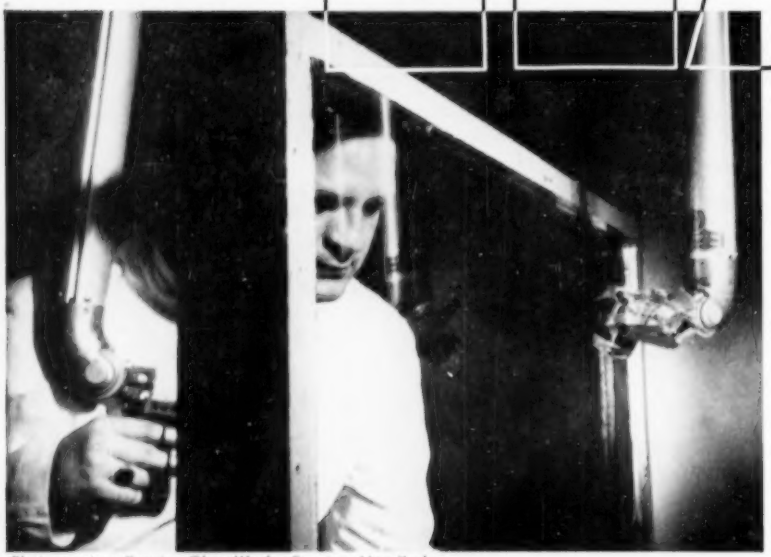
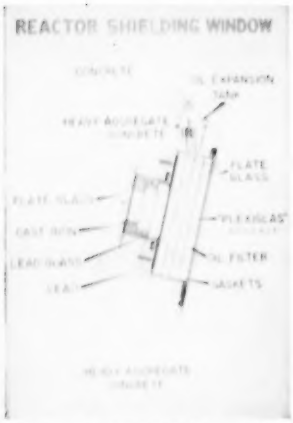


Photo courtesy Corning Glass Works, Corning, New York

...HE SEES, YET HE IS SAFE!



Construction of leaded glass windows recently installed at one of the leading nuclear laboratories.

Lead has long proved its protective value in the field of radioactivity. One of the first problems encountered was to protect the individual against the harmful effects of certain rays. This was accomplished by a *lead metal shield*. But as the field of nuclear activities broadened, it became imperative that operators be able to 'see' what was going on. To work the 'slave' would require visual as well as manual control.

Here, too, LEAD ENTERED THE PICTURE!

Heavily leaded glass is now being used for operational windows. Built of 10 inch thick blocks, such as shown above, these windows will run up to 60 inches thick, depending upon the degree of radioactivity and protection required. Made of the highest quality glass and with a transparency greater than that of the finest sun glasses, these windows provide the necessary high visibility while fully protecting personnel.

Lead, the oldest of metals, is the forefront of the newest in scientific developments: the creation, control and use of nuclear energy.

ST. JOSEPH LEAD COMPANY

The Largest Producer of Lead in the United States

250 PARK AVENUE, NEW YORK 17, NEW YORK

VITAL STATISTICS OF PRINCIPAL METALS

	Nov. 1957	Oct. 1957	Sept. 1957	Year Ago (d)	% Change Latest Mo. and Year Ago	1956 Average
COPPER						
Avg. price per lb, electro (a)	26.339	26.335	26.435	35.696	— 26	41.818
Production: Dom. ref., tons	128,371	129,832	117,078	132,970	— 3	131,691
Dom. crude prim.	89,253	93,078e	87,270	90,573	— 1	94,428
Shipments to fabricators	106,815	114,203	102,925	114,524	— 7	122,158
Stocks at end, ref. dom.	161,552	166,976	176,813	116,516	+ 39	.....
Fabricators' shipments	98,725	119,161	106,927	119,441	— 17	117,791
Stocks at end	428,520	420,130	425,168	435,216	— 2	.....
Imports: Blist. & ref.	.....	.....	31,043	40,570	— 23	38,931
In ore etc.	.....	.....	10,438	6,896	+ 51	10,180
Exports: Refined	.....	.....	28,733	22,350	+ 29	18,499
LEAD						
Avg. price per lb, N. Y.	13.500	13.692	14.000	16.000	— 15	16.013
Production, tons (b)	.....	52,041	50,436	54,815	— 5	51,108
Shipments, dom.	.....	40,447	51,859	45,254	— 11	43,737
Stocks at end, dom.	.....	59,041	54,682	42,314	+ 40	.....
Dom. mine prod., metal cont.	.....	28,101	24,766e	31,374	— 10	29,027
Imports: Refined	.....	.....	23,042	28,559	— 19	21,834
In ore	.....	.....	13,150	13,587	— 3	16,376
ZINC						
Avg. price per lb, St. L. p.w.	10.000	10.000	10.000	13.500	— 26	13.494
Production, refined, tons	79,754	81,492	77,455	91,808	— 13	88,580
Shipments, refined (c)	83,148	79,333	72,985	110,433	— 25	86,276
Stocks at end, dom. ref.	152,531	155,925	153,766	70,184	+ 117	.....
Dom. mine prod., metal cont.	.....	38,347	33,854e	48,594	— 21	44,804
Imports: Ref. metal	.....	.....	15,525	26,094	— 41	20,415
In ore	.....	.....	44,223	37,960	+ 16	43,816
ALUMINUM						
Avg. price, per lb, ingot	28.100	28.100	28.100	27.100	+ 4	26.010
Production, tons	135,024	133,759	129,277	145,081	— 7	139,937
Shipments, dom. metal	.....	.....	147,169	121,854	+ 21	132,623
Stocks at end, dom. metal	.....	.....	175,085	47,179	+ 271	.....
Imports, crude metal	.....	.....	14,183g	8,810	+ 61	18,034
TIN						
Avg. price per lb, N. Y., Straits	89.359	91.875	93.385	110.630	— 19	101.419
Production, Longhorn, long tons	Zero	Zero	Zero	1,655	(j)	1,469
Consumption, primary	.....	.....	4,385	5,305	— 17	5,050
Stocks at end, RFC & cons.	.....	.....	36,750	41,543	— 12	.....
Imports, metal	.....	.....	5,171g	5,367	— 4	5,211
Imports, in ore	.....	.....	Zero	1,462	(j)	1,391

(a) F.O.B. refineries, Atlantic seaboard. For average New England delivered price, add 0.400c.
(b) By primary domestic refineries.
(c) Includes export drawback and Gov't account.
(d) The month of the previous year corresponding to the latest month shown on the same line.
(e) Revised.
(f) Less than ½%
(g) August
(j) Infinite

Sources: Copper production, shipments and stocks—Copper Institute. Lead production, shipments and stocks—American Bureau of Metal Statistics. Slab zinc—American Zinc Institute. Aluminum—U.S. Bureau of Mines. Tin—Department of Commerce and Bureau of Mines.

(A regular feature appearing in the last issue of each month)

Kennecott Copper Corporation
Kennecott Sales Corporation

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Chino Fire Refined Copper (K. C. M.)
Braden Fire Refined Copper (★★★)
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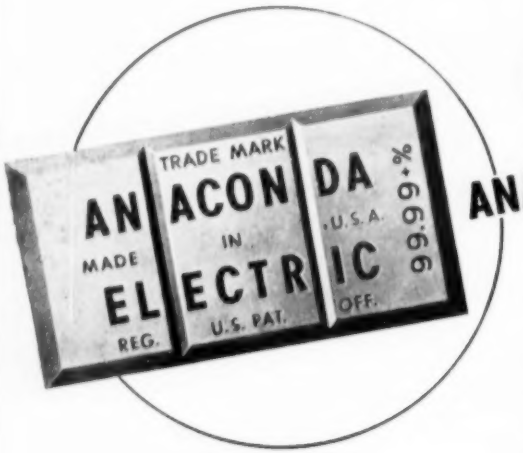

A consistent favorite with the trade for zinc-base die casting alloys. Year in and year out many leading die casters use Anaconda Electric Zinc. Always available from

Anaconda Sales Company
25 Broadway, New York 4, N. Y.

84312

E&MJ QUOTATIONS

Daily Prices of Metals

Dec.	COPPER ELECTROLYTIC Domestic Refinery	Export Refinery	LEAD New York	St. Louis	ZINC (b) Delivered (a)	East St. Louis	ALUMINUM Primary Pig 99%	TIN Straits New York
19	26.550	22.375	13.000	12.800	10.500	10.000	26.000	92.500
20	26.550	22.450	13.000	12.800	10.500	10.000	26.000	92.375
21	No Market	22.450	13.000	12.800	10.500	10.000	26.000	92.375
23	26.500	22.125	13.000	12.800	10.500	10.000	26.000	92.500
24	26.600	21.950	13.000	12.800	10.500	10.000	26.000	92.625
25	Holiday							
Averages	26.550	22.270	13.000	12.800	10.500	10.000	26.000	92.475
Calendar Wk. Avgs. Dec. 16-21	26.300	22.546	13.000	12.800	10.500	10.000	26.000	92.792

(a) Prime Western Zinc sold on delivered basis at centers where freight from East St. Louis exceeds one-half cent a pound.

The above quotations are our appraisal of the major United States markets, based on sales reported by producers and their agencies. They represent payments received by producers for the product. They are reduced to the basis of cash, New York or St. Louis, as noted. Prices in cents per pound.

Copper, lead and zinc quotations are based on sales for prompt and future deliveries; aluminum weighted average prices are based on estimated sales and announced prices; tin quotations are for prompt delivery only.

COPPER prices, domestic, in the trade are quoted on a delivered basis, that is, delivered at consumer's plants. As delivery charges vary with the destination, the figures shown above are net prices at refineries on the Atlantic seaboard. Beginning Jan. 2, 1957, the average differential between delivered and f.o.b. prices is taken as 0.400c per lb.

COPPER quotations, foreign or export, reflect prices obtaining in the open market and are based on sales in the foreign market reduced to the f.o.b. refinery equivalent, Atlantic seaboard. On f.a.s. transactions, eff. Jan. 2, 1957, we deduct 0.125c, for lighterage, etc., to arrive at the f.o.b. refinery quotation.

COPPER quotations are for ordinary forms of wirebars and ingot bars. The premiums on special shapes, effective in some instances on deliveries beginning Sept. 1, 1955, are: Standard ingots 0.25c per pound; slabs 0.55c and up, cakes 0.6c and up, depending on weight and dimensions; billets 1.725c and up, depending on dimensions and quality. Discount on cathodes 0.125c to 0.15c per pound.

ZINC quotations reflect sales of the Prime Western grade as well as sales of other grades when sold on a Prime Western basis. (b) **Zinc premiums** . . . obtaining over Prime Western zinc in the East St. Louis market on the following grades, in cents per pound: **Selected 0.10c; Brass Special 0.25c; Intermediate 0.5c. High Grade** zinc sold on contract, delivered to the consumers' plants, commands a premium of **1.35c** per pound over the East St. Louis basis for Prime Western; **Special High Grade** premium or differential is **1.75c** per pound, effective Dec. 1, 1955.

LEAD quotations are for the common grade, and are based on sales of domestically refined metal sold to domestic consumers. The differential on sales in the Chicago district is 15 points under New York; for California 20 points under New York; for New England add 7½ points to the New York basis. Corroding grade commands a premium over common lead of 10 points.

ALUMINUM quotations refer to primary pig, 99%, delivered to consumers. The U. S. primary producers as well as the major exporter of primary aluminum to the U. S., quote prices delivered to consumers in the U. S. The weights are estimated on the basis of daily average primary capacity in those cases where daily sales or shipments are not available. Ingot sales by primary producers, reduced to the pig price, are included in calculating the quotation. The premium on standard ingots, 99+% is 2.1c per lb.

Note: The daily quotations for copper, lead and zinc are weighted averages of sales reported to *E&MJ;* weekly averages are arithmetical averages of the daily quotations; monthly averages are the arithmetical averages of the daily quotations.

Silver, Gold, and Sterling Exchange

Dec.	Silver N.Y.	Silver London	Sterling Exchange	London Gold (a)
19	89.625	77.125d.	280.5000	249s. 6½d.
20	89.625	77.125d.	280.5687	249s. 6d.
21	Not Quoted			
23	89.625	77.125d.	280.4687	249s. 5½d.
24	89.625	77.125d.	(a)	249s. 7¼d.
25	Holiday			
Av.	89.625	—	(a)	—
Calendar Wk. Avgs. Dec. 16-21	89.675	—	280.551	—

(a) Will appear next week.

The daily silver quotation reported by Handy & Harman, in cents and fractions of a cent per troy ounce, is the price paid by Handy & Harman in settlement for silver contained in unrefined silverbearing materials submitted to them for refining. It is determined on the basis of offers of bar silver .999 fine as made to Handy & Harman for nearby delivery at New York by regular suppliers in quantities sufficient to meet daily requirements, and it is usually one quarter cent below the price at which such offers are made.

The Treasury's purchase price of newly mined domestic silver was established at 90.5c per troy ounce, 1000 fine, effective on July 1, 1946 under an amendment to the Silver Purchase Act of July 6, 1939.

London silver quotations are in pence per troy ounce, basis .999 fine.

London gold quotations are per troy ounce, basis 1000 fine.

Sterling, in cents, noon buying rate for cable transfers as certified by the Federal Reserve Bank of New York, for customs purposes.

Aluminum Alloys Secondary Dec. 19-25

Prices will appear next week.

The secondary aluminum alloy prices are weighted average prices calculated from reports by secondary aluminum producers of the prices and quantities of their sales.

London Metal Exchange

Dec.	COPPER Cash Bid	Cash Asked	3 Mo. Bid	3 Mo. Asked	LEAD Current Month Bid	Current Month Asked	3 Mo. Bid	3 Mo. Asked	ZINC Current Month Bid	Current Month Asked	3 Mo. Bid	3 Mo. Asked	TIN Cash Bid	Cash Asked	3 Mo. Bid	3 Mo. Asked
19	180½	180¾	185	185½	73½	73¾	73½	73¾	63	63¼	63¼	63½	730	730½	730½	731
20	180¾	181	185¼	185½	74	74½	74¼	74½	63⅜	63⅝	63½	63¾	730	730½	730½	731½
23	178¼	178¾	183	183¼	73¼	73½	73⅜	73½	62⅜	62½	62½	62⅝	730	730½	731	731½
24	179½	179¾	183½	184	73¼	73½	73¼	73½	62	62⅛	62	62¼	730	730½	732	732½
25	Holiday															

Prices are for the official a.m. session in pounds sterling per ton of 2240 lb. Copper basis wire bars, lead 99.97%, zinc 98% and tin min. 99.75%.

THIS WEEK'S BUSINESS INDICATORS

	Latest Week	Preceding Week	Month Ago	Year Ago	Net Change Year Ago
Steel Rate (% of capacity in operation)	(d) 53.7	(a) 68.1	72.1	94.3	−40.6
Steel Ingot Production, thousands of tons	(d) 1,374	(a) 1,742	1,846	2,322	−948
Automobile Production (cars and trucks)	(d) 169,138	(a) 175,253	184,365	189,826	−20,688
Electric Power Output (millions kwh.)	12,570	12,315	11,953	12,220	+350
Engr'g Const. Awards, 4-week daily av., in thousands (c)	$42,039	$46,603	53,561	$72,283	−$30,244
Federal Reserve Index of Industrial Production (e)	(d) 141 Nov.	....	142	147	−6
E&MJ Index of Nonferrous Metal Prices (e)	175.46 Nov.	....	176.22	216.51	−41.05
All Commodities, Bureau of Labor Statistics (e)	118.0 Nov.	....	117.7	115.9	+2.1

(a) Revised. (b) 100 is composite of 1922-3-4. (c) From Eng. News-Record. (d) Preliminary. (e) Base period 1947-49

May we quote on your
ZINC ANODE
requirements?

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HORSE HEAD SPECIAL ZINC
(Special High Grade—99.99 + % Pure)

THE NEW JERSEY ZINC COMPANY
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Manganese Ore Imports Down 19% in September

Domestic mine shipments of manganese ore in September decreased 27% from August to 23,200 short tons, according to the U. S. Bureau of Mines.

Shipments of manganiferous and ferruginous ore totalled 146,000 short tons, of which Minnesota supplied 97% and Montana and New Mexico the remainder. Shipments of manganese ore and low-grade manganese ores were made to low-grade Government stockpiles from Montana, Nevada and Utah.

Imports of manganese ore containing 35% or more manganese totalled 220,795 short tons, a decrease of 19% from August, as compiled by the Bureau of the Census. Of the total imports, Brazil supplied 31%, India 22%, Ghana 14%, Mexico and the Union of South Africa each 9%, and Cuba, Belgian Congo, British West Pacific Islands, Chile, Morocco, Angola, Peru and Indonesia the remaining 15% in decreasing order. Imports of ferromanganese at 43,556 short tons of ore equivalent were more than twice those of August.

Manganese statistics in the United States in July, August and September, 1957:

	July	Aug.	Sept.
Dom. mine shipments	31,700	31,800	23,200
General imports:			
Ore	286,446	271,626	220,795
Ferro	20,594	18,562	43,556
Exports:			
Ore	483	542	367
Ferro	5,390	5,784	140
Net supply	333,000	316,000	287,000

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Buyers of...

TUNGSTEN

METAL SCRAP
COMPLEX ORES
CONCENTRATES
GRINDINGS
RESIDUES

Dealers' Scrap Prices

Dealers' buying prices, f.o.b. New York or equivalent freight points, for wholesale quantities, in cents per lb.

No. 1 copper wire	18½@19
Heavy copper & wire, mixed	16½@17
Light copper	14@14½
No. 1 composition	14½@15
Composition turnings	14@14½
Light brass	9@9½
Yellow brass turnings, mix	9@9½
Heavy yellow brass, mixed	11@11½
Auto radiators, unsweated	12@12½
Brass pipe, cut	12½@13
Rod brass turnings, No. 1	11½@12
Rod ends, brass	12@12½
New soft brass clips	13½@14
Cast aluminum, mixed	10½@11
Aluminum crankcases	10½@11
Aluminum clips, new soft	13½@14
Sheet aluminum, old clean	10½@11
Aluminum turnings, clean	6½
Zinc die cast, mixed	1¾
Zinc die cast, new	3
Old zinc	3
New zinc clips	4½
Soft or hard lead	9@9½
Battery plates	4
Babbitt mixed	10½@11
Linotype or stereotype	11½@12
Electrotype	10@10½
Solder joints close cut	15½@16
Block tin pipe	75@76
Autobearing babbitt	35@36
Monel clips, new	30@35
Monel sheet, clean	30
Nickel, rod ends	45@50
Nickel, clippings	45@50

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★ ELECTROLYTIC
Special High Grade
High Grade
Continuous Galvanizing Line Grades

★ FIRE RETORT
High Grade
Intermediate
Continuous Galvanizing Line Grades
Brass Special
Select
Prime Western

American Zinc sales company

Distributors for AMERICAN ZINC, LEAD & SMELTING COMPANY
Columbus, Ohio • Chicago • St. Louis • New York • Detroit • Pittsburgh

Smelters' Copper Scrap Prices

Custom smelters' buying prices for scrap, carload lots, refinery:

No. 1 copper and wire, 20½c; No. 2 heavy copper, 19c; light copper, 16¾c; refinery brass, 18½c.

Brass and Bronze Ingot

85-5-5-5 (No. 115) 27¼c; 80-10-10 (No. 305) 31¼c; 88-10-2 (No. 215) 34c. Yellow, (No. 405) 22¾c, and upward. Manganese bronze (No. 420) 24c.

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Smelters' Aluminum Alloys

Delivered prices of smelters' aluminum ingot, per pound, in lots of 10,000 lb. or more.

Piston alloy D132 24@25c. No. 12 alloy 22½@23c; No. 13 alloy, max. .30 copper, 25@26c.

Deoxidizing grades: No. 1, 23@24; No. 2, 21¾@22½c; No. 3, 20½@21½c; No. 4, 18¼@19¼c.

•

Tri-State Concentrates

Joplin, Dec. 24, 1957

(a) *Blende*	*Per Ton*
Prime coarse (60% zinc)	$56
Flotation, 60% zinc	$56

(a) Effective July 8, 1957

Galena	
Coarse and flotation, 80% lead	(a)$156.12

(a) Effective December 2, 1957

•

A Custom Smelter Copper Price December 19-25

The following prices are computed by *E&MJ Metal and Mineral Markets* from data on flat price and average price sales reported by the American Smelting & Refining Co. They refer to electrolytic copper in standard shapes.

Delivered consumers' plants	26.125c
F.O.B. refinery	25.725c

They are for sales in the U. S. market and are adjusted to the nearest one-eighth cent. A one-quarter cent deduction for selling commission has been made.

•

Refractories

CHROME BRICK – Per ton f.o.b. shipping point: Chemically bonded Balt. $105, Calif. $115, burned, $99.

FIRECLAY BRICK–Per M, first quality, $128., Missouri, Kentucky, Pennsylvania; second quality, $114. Ohio, No. 1, $120; No. 2, $103.

MAGNESITE – Brick, per ton f.o.b. works, 9-in. straights, $121; chemically bonded, $116.

SILICA BRICK–Per M, Pennsylvania, $155; Alabama, $150; Illinois, $160.

•

Iron, Steel, and Coke

PIG IRON – Per gross ton Valley furnaces: Bessmer, $67.00, basic, $66.00 and No. 2 foundry $66.50.

STEEL – Per net ton, f.o.b. mill, Pittsburgh, billets and slabs, $77.50; Bars per 100 lb, $5.525; plates and structural shapes, $5.10@$5.275.

STEEL SCRAP – Per gross ton, delivered Pittsburgh, No. 1 heavy $32-33 No. 2 heavy $30-31. Cleveland, No. 1 heavy $27-28, No. 2 heavy $21-22.

COKE – Per ton, Connellsville furnace, $15.25; foundry, $18.25.

•

Lead Average (Monterrey)

The net price realized by the American Smelting & Refining Co. on all of its sales of Mexican pig lead, including metal sold for consumption in Mexico, during the week ended Dec. 21, 1957, was 8.83c (U.S.) per lb. f.o.b. refinery Monterrey, Mex.